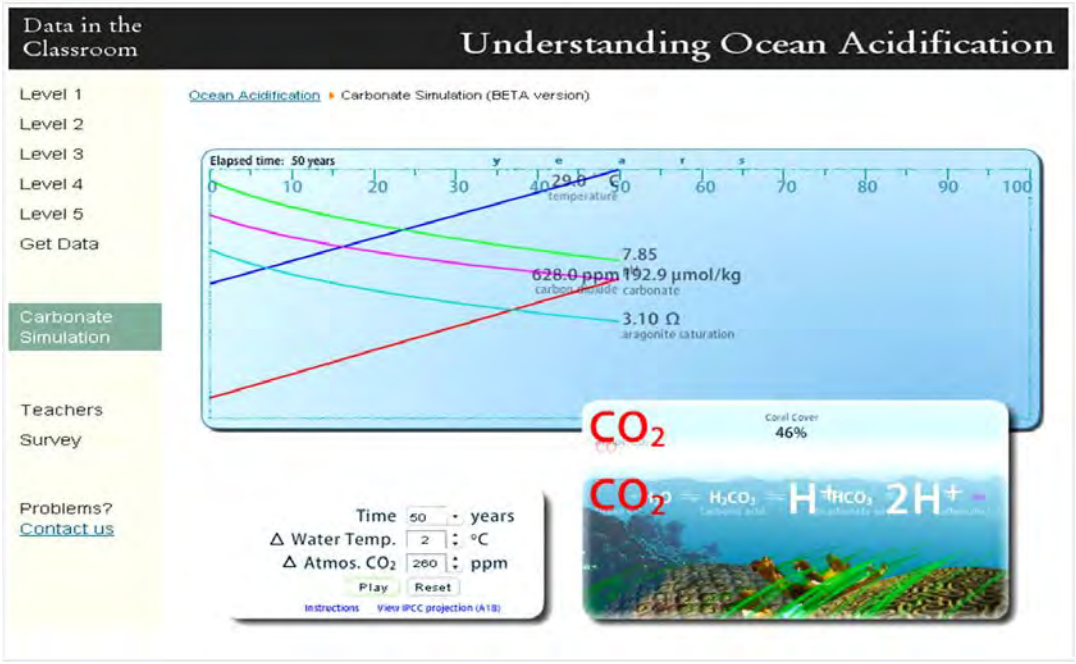
FREE Teacher Workshop

Understanding Ocean Acidification

Learn how to teach about ocean acidification and coral reefs using the latest data from NOAA



The Data-in-the-Classroom Module from NOAA Coral Reef Conservation Program incorporates real (and near-real time) data on Ocean Acidification that includes a set of five scalable lesson plans with simulations and demos. Workshop will also cover corals & watershed and a Water Quality module.

WHO	High School science teachers/ Middle School teachers
WHAT	Ocean Acidification and Water Quality Educational Modules
WHEN/WHERE	*June 14, 2011* at Ft. Lauderdale (NOVA Nat'l Coral Reef Inst.) *June 15, 2011* at South Miami (UM - Rosenstiel School) *June 17, 2011* at Key West (Nat'l Marine Sanctuary Office)
HOW LONG	9:00 AM – 5:00 PM
YOU BRING	Your laptop
YOU GET	A $75 teacher stipend provided for full-day participation, Master Plan Points/In-Service Points, plus the full printed OA Module Teachers' Guide, multimedia educational materials, beautiful coral reef posters and more

NOAA National Oceanic and Atmospheric Administration U.S. Department of Commerce

NOAA Coral Reef Conservation Program

National Marine Sanctuaries Florida Keys

Florida Department of Environmental Protection

Southeast Florida Coral Reef Initiative

Acting above to protect what's below.

Workshop Description

Teachers will learn to use real data from NOAA to teach ocean acidification and how it affects coral reefs and other marine calcifiers, using integrated scalable lesson plans associated with this module. Workshop will include demos and multimedia to use in your classroom, a background science presentation on ocean acidification, and a walk-through of the five scalable lesson plans and data exercises that are part of this Data-in-the-Classroom project. Workshop will also briefly present Water Quality module, aimed at the middle school level, that also help build student data literacy and inquiry-driven learning.

* *Lesson 1: Ocean pH* – Understanding spatial and temporal variations of ocean pH
* *Lesson 2: Ocean-Carbon connection* – Understanding how CO2 goes from land activity to atmosphere to ocean
* *Lesson 3: Carbonate Chemistry* – Understand chemical pathway of how CO2 lowers ocean pH and its affect on carbonate chemistry
* *Lesson 4: Aragonite Saturation and Marine Calcifiers* – Understanding the concept of aragonite saturation state and marine animals affected by it
* *Lesson 5: Student-driven Investigation* – Ability to design an investigation and obtain data to check it

Water Quality NODE module will introduce: Corals and Watersheds; Reading Water Temp data; Understanding Dissolved O2; Introducing Salinity.

Agenda

9:00-10:00 AM	**Registration, introduction, pre-testing**
10:00-10:30 AM	**Ocean Acidification & Coral Reefs**
10:30-11:00 AM	**NODE Overview**
11-Noon	**OA Module Lessons 1-2**
Noon- 1:00 PM	**Lunch**
1:00-3:00 PM	**OA Module Lessons 3-5**
3:00-3:30 PM	**Watersheds and Corals**
3:30-4:30 PM	**Water Quality Module**
4:30-5:00 PM	**Post-testing**

To Register:

http://coralreefs2011.questionpro.com/

(Limited seating: Participants will receive confirmation email once their registration is processed)